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WISCONSIN PEST BULLETIN

Timely crop pest news, forecasts, and growing season conditions for Wisconsin

STATE OF WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION PLANT INDUSTRY BUREAU
2811 Agriculture Dr. Madison, WI 53718 • http://pestbulletin.wisconsin.gov

WEATHER & PESTS

Rainy weather persisted during the week, disrupting planting and other fieldwork. Mostly cloudy skies, wet conditions and light breezes prevailed as daytime highs in the 50s and 60s early in the week warmed to the 70s and 80s by Wednesday. Several rounds of showers and thunderstorms moved through the state, causing river levels to rise, flash flooding and adding excess moisture to already saturated fields. Rain from the storms also caused further delays in corn and soybean planting, as well as harvesting of first crop alfalfa. Only 4% of the alfalfa crop was harvested as of May 28, compared to 59% last year and a five-year average of 19%. Corn planting was 64% complete at the start of the week, but many acres intended for corn may be planted to soybeans or could go unplanted if wet weather continues. According to the USDA NASS Wisconsin Field Office, there have been only 16.9 days suitable for fieldwork this spring (from April 7-May 28).

LOOKING AHEAD

ALFALFA WEEVIL: Larval counts have increased markedly in the last reporting period. Surveys yielded an average of 61 per 100 sweeps compared to 22 per 100 sweeps last week. Damage has become more pronounced and is expected to intensify in the week ahead. Alfalfa should be harvested once the rain subsides to limit larval feeding and prevent the need for insecticidal control.

POTATO LEAFHOPPER: Migrants are distributed in very low numbers across the southern two-thirds of the state. The average in the past week was only four per 100 sweeps, with a high count of 12 per 100 sweeps noted near Lake Mills in Jefferson County. Nymphs could begin appearing in sweep net collections by the second or third week in June.

EUROPEAN CORN BORER: The first moths of the spring flight were collected in the Prairie du Chien black light trap on May 20. Based on the European corn borer degree day model, the majority of moths are likely to emerge from June 8-14 at advanced southern sites and from June 14-21 in the central counties.

TRUE ARMYWORM: Larvae were swept in low numbers from alfalfa in Dane and Rock counties from May 23-29. The ¼-½ inch caterpillars are the offspring of moths that arrived earlier this month. Black light traps also registered 53 moths in the past week and growers should anticipate more larvae appearing in fields by early June.

BLACK CUTWORM: Damp field conditions and delayed weed control may contribute to localized black cutworm problems in the next several weeks. The primary cutting

period began on May 28 in southern Wisconsin and could extend through late June this year. Close inspection of corn (including Bt hybrids) for evidence of cutworm feeding is imperative from emergence through the V-4 stage. Pinholes in corn leaves are an early indicator of potential cutting.

Black cutworm feeding injury ipm.missouri.edu

FORAGES

ALFALFA WEEVIL: Larval populations are rapidly increasing in first growth alfalfa. Economic defoliation (>40%) and high counts of 200-650 larvae per 100 sweeps (2.0-6.5 per sweep) have been observed in southern Wisconsin fields since May 22. Damage is expected to escalate next week as larvae transition into the larger and most destructive third and fourth-instars, and alfalfa that is not harvested on time could be severely degraded. Control is justified when the economic threshold of 40% tip feeding is exceeded more than 7-10 days in advance of harvest.

PEA APHID: Alfalfa fields sampled in the southern half of the state contained 1-144 aphids per 100 sweeps. The average count for the period of May 23-29 was 25 per 100 sweeps, a modest increase from nine per 100 sweeps the week before.

MEADOW SPITTLEBUG: The first nymphs and spittle masses were observed in alfalfa late last week. Populations are currently below two per 100 stems.

PLANT BUG: Representative counts are extremely low and range from 1-9 per 100 sweeps. Small nymphs of the tarnished and alfalfa plant bug species could appear by early June.

DEGREE DAYS JANUARY 1 - MAY 29

LOCATION	50°F	2012	NORM	48°F	40°F
Dubuque, IA	432	830	532	448	820
Lone Rock	406	825	—	409	776
Beloit	491	857	541	483	893
Madison	400	794	511	405	769
Sullivan	421	788	485	420	790
Juneau	362	741	—	383	714
Waukesha	350	663	—	363	692
Hartford	325	650	—	341	657
Racine	316	606	—	335	656
Milwaukee	303	593	407	319	629
Appleton	307	641	444	322	612
Green Bay	264	567	412	280	566
Big Flats	336	715	—	338	645
Hancock	338	706	500	348	642
Port Edwards	319	670	487	330	602
La Crosse	356	776	569	376	693
Eau Claire	315	667	500	332	597
Cumberland	272	551	436	271	512
Bayfield	149	395	—	135	338
Wausau	291	578	429	294	540
Medford	291	572	381	297	539
Crivitz	237	518	—	241	503
Crandon	266	496	346	258	489

Method: ModifiedB50; Sine48; ModifiedB40 as of Jan 1, 2013. NORMALS based on 30-year average daily temps, 1981-2010.

CORN

EUROPEAN CORN BORER: The emergence of spring moths theoretically continued for the second week, although no moths were registered in black light traps. The phenology model for this pest suggests egg deposition is beginning in areas of the state where 450 degree days (modified base 50°F) have accumulated, including Beloit and Lancaster. At current temperatures, the first flight could peak by June 14 in the southern counties, June 21 in the central counties and about one week later in the north.

TRUE ARMYWORM: Field conditions have become increasingly favorable for localized infestations of this insect and the black cutworm. Crop advisors and growers should continue to monitor corn and small grains throughout June. Small larvae have been noted in alfalfa in the past two weeks, but no significant armyworm problems have been observed or reported as of May 30.

BLACK CUTWORM: Larvae resulting from the spring migration are now in the damaging late-instar stages in portions of southern Wisconsin. Signs of cutworm activity, such as small, irregular holes in the leaves and cut plants should become evident in infested fields next week. Many corn fields are at increased risk of attack this season as a result of delayed planting and late weed control. These fields should be closely monitored for cutworm feeding through the four-leaf stage. Early detection of cutworm problems is critical for insecticide treatments to be effective and economical. The threshold for corn is 3% of plants damaged.

CORN EARWORM: A moderate migration risk is in the forecast for southern Wisconsin from May 29-31 as south to southwest winds increase ahead of a cold frontal boundary. Corn is not at a critical growth stage where corn earworm damage can occur, but host plants may serve as breeding grounds for any migrating first generation moths. Growers monitoring early-season moth activity will likely see scattered increases in counts in the next week.

Corn earworm moth pk-photography.blogspot.com

SOYBEANS

BEAN LEAF BEETLE: Overwintered beetles were found in only four of 58 alfalfa fields sampled this week. The first appearance of this insect was noted on May 15 in Richland County. The very low number of beetles collected this spring suggests a low risk of early soybean defoliation in June.

SOYBEAN APHID: The first soybean aphids of the 2013 growing season could begin to colonize Wisconsin soybean fields in the next two weeks. In previous years, the earliest aphid reports were as follows: June 4 in 2012, June 7 in 2011, June 2 in 2010, June 9 in 2009, June 18 in 2008, May 24 in 2007, June 7 in 2006, and June 3 in 2005.

Soybean aphids Krista Hamilton DATCP

FRUITS

CODLING MOTH: Low to moderate numbers of moths were registered in pheromone traps for the second week. Reports of activity were received from 14 of 24 reporting apple orchards in the past week, with a high count of 16 moths per trap near New Berlin in Waukesha County. The spring biofix was set from May 19-29 at several sites in southern and central Wisconsin.

REDBANDED LEAFROLLER: Counts are declining at most locations as the first flight comes to an end. The average count was 13 moths per trap from May 23-29, which compares to 33 last week and 17 per trap the week before. Egg hatch is under way and larvae are appearing in southern orchards.

SPOTTED TENTIFORM LEAFMINER: The comparatively low numbers of moths captured this week signals most apple orchards are in between the first and second flights. Populations in the southern two-thirds of the state consist mostly of the early-stage sapfeeder larvae.

PLUM CURCULIO: Reports from Ozaukee and Racine counties indicate the first feeding and oviposition scars are appearing on apples and plums. Orchardists are advised to continue examining early-blooming varieties and perimeter trees for signs of injury. An insecticide

application directed against the adults at petal fall is usually an effective form of control.

OBLIQUEBANDED LEAFROLLER: The first flight of moths is expected to begin by early June. Apple growers who have experienced late-season OBLR problems in recent years should consider setting additional traps now to identify problem areas and determine where to concentrate sampling efforts.

VEGETABLES

SPOTTED CUCUMBER BEETLE: This distinctive yellowish-green beetle with black spots is appearing in alfalfa in the southern half of the state. Similar to the cabbage looper, the spotted cucumber beetle does not overwinter in Wisconsin but migrates in from southern states each year, arriving around June. Both this species and the striped cucumber beetle are efficient vectors of bacterial wilt of cucumbers, muskmelons and watermelons. Early beetle control may be required in large commercial muskmelon or cucumber operations in June. The first symptom of bacterial wilt on cucumber and melon is a distinct flagging of lateral and individual leaves.

Spotted cucumber beetle *icmp2005 bugguide.net*

ONION MAGGOT: Emergence of first generation flies continued at south-central and southwestern locations. Peak emergence is anticipated in the Eau Claire, Hancock and Wausau areas next week, following the accumulation of 680 degree days (base 40°F). Flies of this spring generation are usually the most abundant and damaging, especially at sites where onions are grown in succession. Preventative soil insecticides should be considered if maggot damage to the last year's crop exceeded 5-10%. Home gardeners are advised to rotate this year's plantings as far as possible from last year's to reduce the likelihood of damage.

NURSERY & FOREST

CEDAR-APPLE RUST: Mature galls on juniper have recently begun sporulating in southern Wisconsin. The bright orange, gelatinous tendrils that emerge from these galls release spores which can infect apples and related fruit trees 2-3 miles away. Cedar-apple rust alternates between junipers and rosaceous plants and requires both hosts to complete its life cycle. Removal of the galls before sporulation is recommended to limit spread of the disease to the alternate hosts, apple, crabapple, hawthorn, quince, pear and serviceberry.

Cedar-apple rust gall on juniper *Liz Meils DATCP*

VIRUSES: Nursery inspectors continue to find a variety of plants infected with viruses in Wisconsin greenhouses and garden centers. Cucumber mosaic virus (CMV) and tobacco rattle virus (TRV) remain the most common, but others such as impatiens necrotic spot virus (INSV) on Lychnis x arkwrightii 'Vesuvius' have also been detected. The increasing prevalence of viruses in the nursery trade emphasizes the need for proper sanitation of pruning tools since viruses can be spread mechanically by contaminated tools. Some viruses are also spread by nematodes, but control of the nematodes is usually impractical. Recognition of virus symptoms is critical for both nursery operators and gardeners who should avoid selling and purchasing infected plants. Plants with viral diseases cannot be treated to eliminate the virus and must be removed and disposed of by burning, burying or composting.

POWDERY MILDEW: This common fungal disease of ornamental plants was observed on Echinacea 'Flame Thrower' in a Waukesha County nursery. Powdery mildew appears on most plants as a grayish-white powdery growth on the upper leaves, which later causes the foliage to turn yellow and prematurely senesce. Reducing humidity levels and increasing air circulation will alleviate the problem. Fungicidal control is usually not necessary.

Powdery mildew on coreopsis *Marcia Wensing DATCP*

LEAFCURL APHID: Snowball viburnums in a Waupaca County nursery were infested with these green aphids, which feed in clusters at the tips of the branches, causing twisting and curling of leaves. Aphid feeding usually results in little or no permanent damage, but control may be required for high populations. Insecticidal soaps and horticultural oils are effective if sprayed directly onto the foliage and aphids at temperatures below 85 °F (repeat applications at 5- to 7-day intervals may be required). Soil-applied systemic insecticides last longer and are the recommended form of control.

Leafcurl aphid damage to ash tree *Liz Meils DATCP*

EARLY CONE FORMATION: Frasier firs in the northwest region of the state are responding to last summer's extreme heat and drought stress by producing early cones. These cones should be removed now, while they can be easily picked by hand. After mid-June, the bases of the cones will turn woody and removal will be more labor intensive. Premature coning is an undesirable trait in Fraser fir.

Premature cones on Frasier fir *Konnie Jerabek DATCP*

APPLE INSECT & BLACK LIGHT TRAP COUNTS MAY 23 - 29

COUNTY	SITE	STLM[1]	RBLR[2]	CM[3]	OBLR[4]	AM RED[5]	YELLOW[6]
Bayfield	Keystone	0	2	0	0		
Bayfield	Orienta	1	0	—	—		
Brown	Oneida	—	—	—	—		
Chippewa	Chippewa Falls	30	24	0	0		
Columbia	Rio	—	—	—	—		
Crawford	Gays Mills	91	5	0	—		
Dane	Deerfield	3	8	2	—		
Dane	McFarland	0	0	5	—		
Dane	Mt. Horeb	60	4	0	0		
Dane	Stoughton	4	1	4	0		
Dane	West Madison	8	0	1	0		
Fond du Lac	Campbellsport	31	4	0	0		
Fond du Lac	Malone	2	10	2	0		
Fond du Lac	Rosendale	4	7	0	—		
Green	Brodhead	0	2	6	0		
Iowa	Mineral Point	17	0	4	—		
Jackson	Hixton	180	17	0	—		
Kenosha	Burlington	5	1	2	0		
Marathon	Edgar	55	80	0	—		
Marinette	Niagara	52	1	0	0		
Marquette	Montello	162	15	0	0		
Ozaukee	Mequon	30	21	0	0		
Pierce	Beldenville	162	34	2	0		
Pierce	Spring Valley	31	68	2	0		
Polk	Turtle Lake	70	36	2	0		
Racine	Raymond	144	0	3	0		
Racine	Rochester	45	4	5	—		
Richland	Hillpoint	110	10	0	—		
Sheboygan	Plymouth	12	12	1	0		
Walworth	East Troy	—	—	—	—		
Walworth	Elkhorn	—	—	—	—		
Waukesha	New Berlin	70	0	16	0		

[1]Spotted tentiform leafminer; [2]Redbanded leafroller; [3]Codling moth; [4]Obliquebanded leafroller; [5]Apple maggot red ball; *Unbaited AM trap; **Baited AM trap; [6]Apple maggot yellow board.

COUNTY	SITE	ECB[1]	TA[2]	BCW[3]	SCW[4]	DCW[5]	CE[6]	CEL[7]	WBC[8]	FORL[9]	VCW[10]
Chippewa	Chippewa Falls	—	—	—	—	—	—	—	—	—	—
Crawford	Prairie du Chien	0	1	0	0	0	0	3	0	0	0
Dane	Mazomanie	—	—	—	—	—	—	—	—	—	—
Fond du Lac	Ripon	0	33	0	0	0	0	0	0	0	0
Manitowoc	Manitowoc	—	—	—	—	—	—	—	—	—	—
Marathon	Wausau	0	5	1	0	0	0	0	0	0	0
Monroe	Sparta	—	—	—	—	—	—	—	—	—	—
Portage	Plover	—	—	—	—	—	—	—	—	—	—
Rock	Janesville	0	10	0	0	0	0	0	0	0	0
Walworth	East Troy	—	—	—	—	—	—	—	—	—	—
Wood	Marshfield	0	4	0	0	0	0	1	0	0	1

[1]European corn borer; [2]True armyworm; [3]Black cutworm; [4]Spotted cutworm; [5]Dingy cutworm; [6]Corn earworm; [7]Celery looper; [8]Western bean cutworm; [9]Forage looper; [10]Variegated cutworm.